A6D990-AX05-06

AC axial fan - HyBlade®

sickled blades (S series)

A6D990-AX05-06 ebmpapst Datasheet
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County court Stuttgart · HRA 590344

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**A6D990-AX05-06**
Motor	**M6D138-OA**

Phase		3~	3~
Nominal voltage	VAC	400	400
Connection		Δ	Y
Frequency	Hz	50	50
Type of data definition		ml	ml
Valid for approval / standard		CE	CE
Speed	min^{-1}	930	770
Power input	W	2480	1820
Current draw	A	5.63	3.42
Max. back pressure	Pa	120	80
Min. ambient temperature	°C	-40	-40
Max. ambient temperature	°C	60	60
Starting current	A	21	12

ml = max. load · me = max. efficiency · fa = running at free air · cs = customer specs · cu = customer unit
Subject to alterations

Data according to ErP directive

Installation category	A
Efficiency category	Static
Variable speed drive	No
Specific ratio*	1.00

* Specific ratio = 1 + p_{fs} / 100 000 Pa

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}		39.6	32.4	36.4
Efficiency grade N		43.2	36	40
Power input P_e	kW	2.69		
Air flow q_v	m^3/h	22620		
Pressure increase p_{fs}	Pa	170		
Speed n	min^{-1}	920		

Data established at point of optimum efficiency

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Technical features

Mass	31.5 kg
Size	990 mm
Surface of rotor	Cast in aluminium
Material of terminal box	ABS plastic
Material of blades	Aluminium sheet insert, sprayed with PP plastic
Number of blades	5
Blade angle	-5°
Direction of air flow	"V"
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"F"
Humidity class	F3-1
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Mounting position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensate discharge holes	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Electrical leads	Via terminal box
Motor protection	Thermal overload protector (TOP) brought out
Cable exit	Axial
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60034; EN 61800-5-1; CE
Approval	VDE

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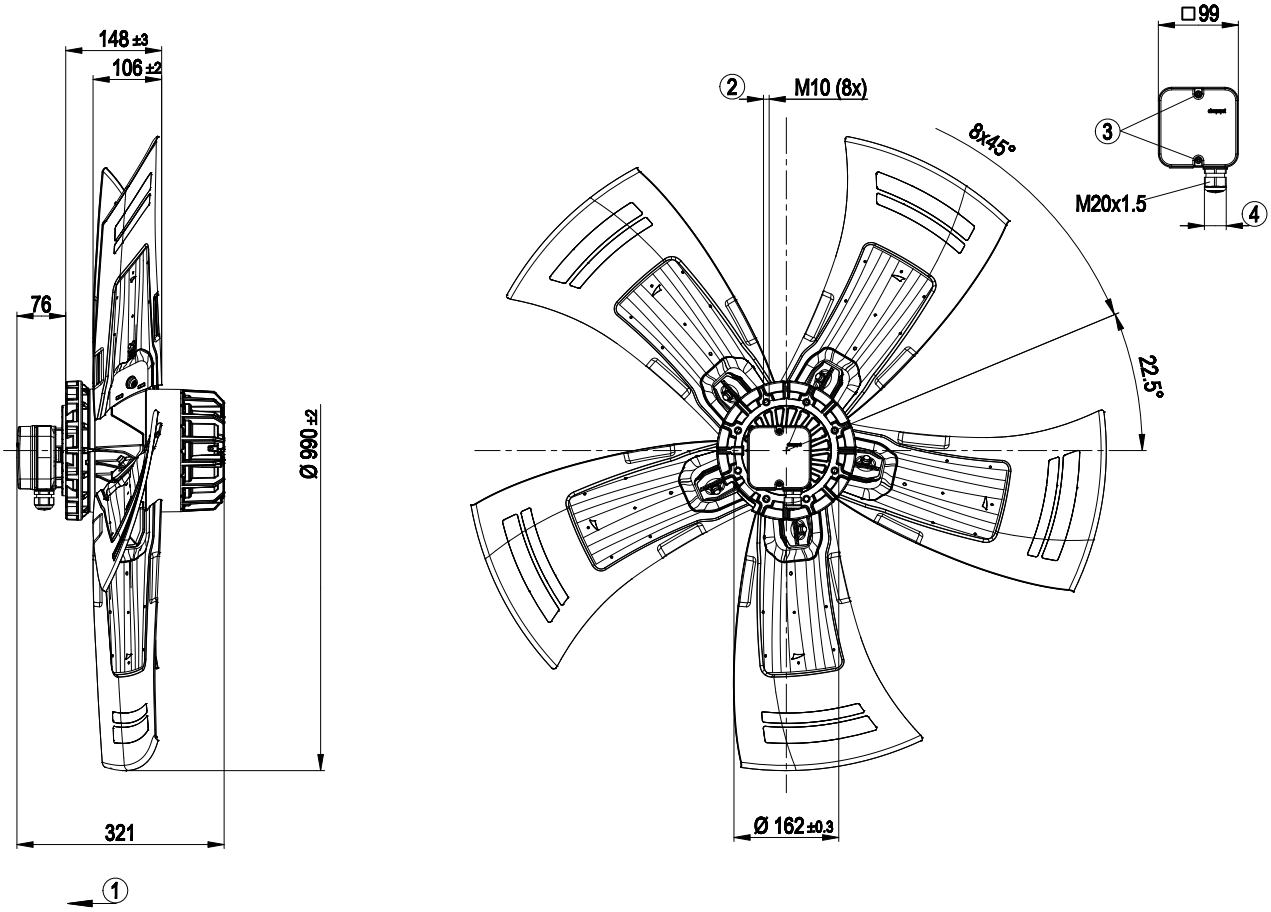
Product drawing



1	Direction of air flow "V"
2	Depth of screw max. 18 mm
3	Tightening torque 1.5±0.2 Nm
4	Cable diameter: min. 7 mm, max. 14 mm; tightening torque: 2±0.3 Nm

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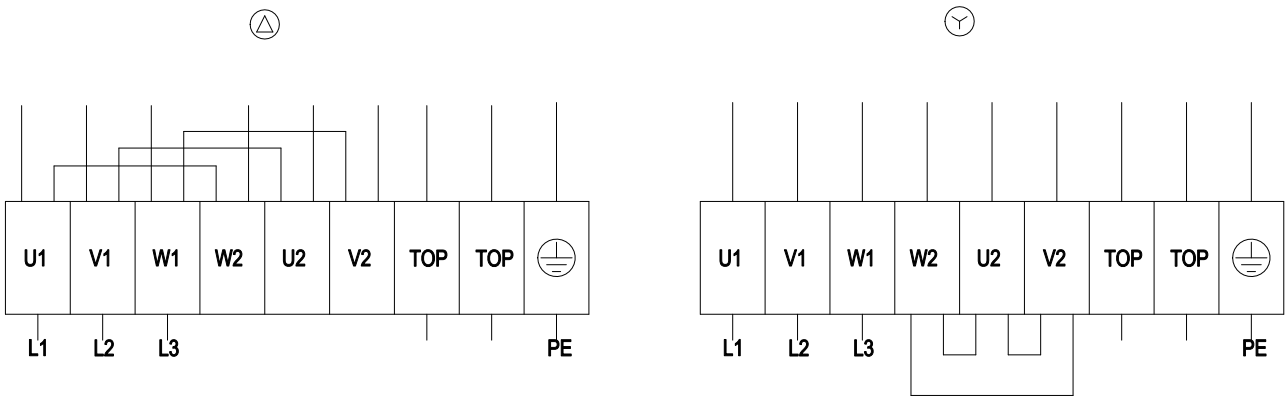
Connection screen



Δ	Delta connection	Y	Star connection	L1	= U1 = black
L2	= V1 = blue	L3	= W1 = brown	W2	yellow
U2	green	V2	white	TOP	2 x grey
PE	green/yellow				

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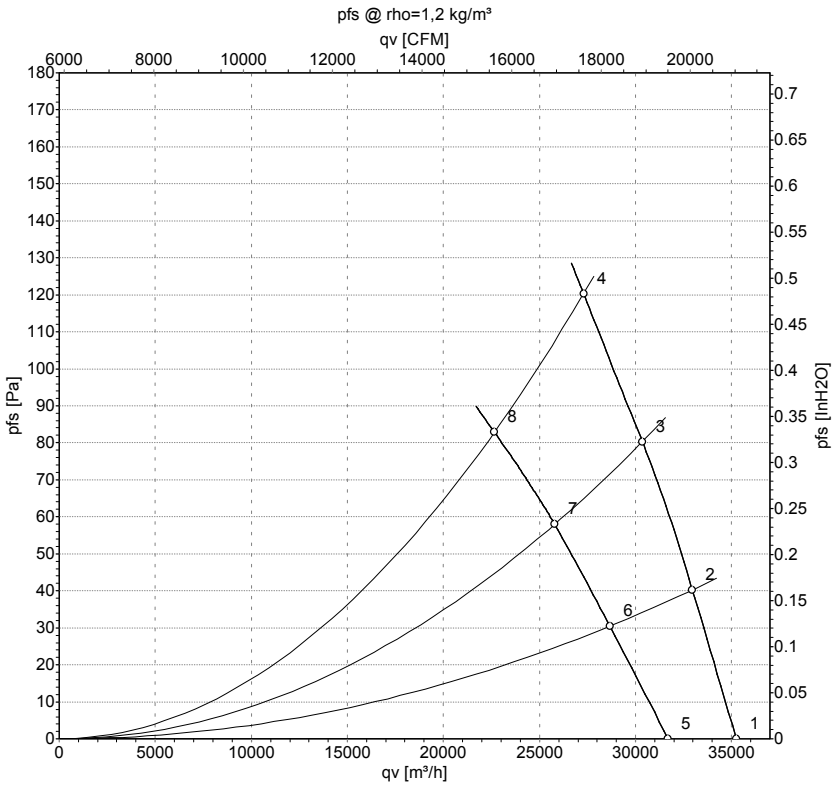
Charts: Air flow 50 Hz



Measurement: LU-134881
Measurement: LU-134883

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

Measured values

	Conn.	U	f	n	P_e	I	LpA_{in}	LwA_{in}	LwA_{out}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa
1	Δ	400	50	960	1742	4.92	76	84	84	35260	0
2	Δ	400	50	950	1989	5.12	75	82	83	32960	40
3	Δ	400	50	940	2213	5.33	74	81	82	30360	80
4	Δ	400	50	930	2480	5.63	74	81	81	27300	120
5	Y	400	50	855	1377	2.60	73	81	81	31700	0
6	Y	400	50	830	1537	2.89	71	79	79	28665	31
7	Y	400	50	800	1679	3.15	70	78	77	25795	58
8	Y	400	50	770	1820	3.42	69	77	76	22655	83

Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed · P_e = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side
LwA_{out} = Sound power level outlet side · qv = Air flow · p_{fs} = Pressure increase